

**MOTOROLA**

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Number of Pages (Including this page)

**Date:** October 12, 2004

**To:** Examiner Han, C. – Group 2665

**Location:** United States Patent and Trademark Office

**Fax No.:** 703-872-9306

**From:** Steven A. May (Registration No. 44,912)

**Subject:** Serial No. 09/657,915 –Scribano et al.

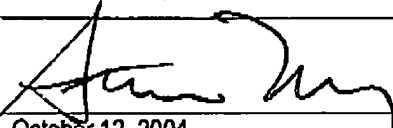
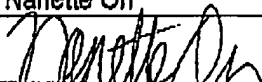
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**MESSAGE:**

Enclosed herewith, please find an APPEAL BRIEF for filing in the below-identified application.

**PLEASE GIVE THESE PAPERS TO:**

EXAMINER:	Han, C.
GROUP ART UNIT:	2665
SERIAL NO.:	09/657,915
FILED:	09/08/2000
INVENTOR:	Scribano et al.
ATTORNEY DOCKET NO.:	CE09396R C02

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	09/857,915	
	Filing Date	September 8, 2000	
	First Named Inventor	Scribano et al.	
	Group Art Unit	2665	
	Examiner Name	Han, C.	
Total Number of Pages in this Submission	4	Attorney Docket Number	CE09396R C02
<b>ENCLOSURES</b> (check all that apply)			
<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group	
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences	
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Licensing-Related papers	<input checked="" type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)	
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Proprietary Information	
<input type="checkbox"/> Affidavits/Declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter with appropriate copies	
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<input type="checkbox"/> Response to Missing Parts Under 37 CFR 1.52 or 1.53		<input type="checkbox"/> Transmittal of Formal Drawings	
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Date	October 12, 2004		
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<b>FEE TRANSMITTAL</b>  Patent fees are subject to annual revision		<i>Complete if Known</i>			
		Application Number		09/657,915	
		Filing Date		September 8, 2000	
		First Named Inventor		Scribano et al.	
		Examiner Name		Han, C.	
Group Art Unit		2665			
TOTAL AMOUNT OF PAYMENT		(\$)		Attorney Docket No. CE09396R C02	

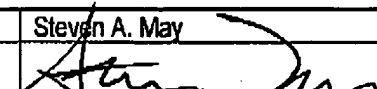
  

<b>METHOD OF PAYMENT</b>  1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to: Deposit Account Number <u>50-2117</u> Deposit Account Name <u>Motorola, Inc.</u>  <input checked="" type="checkbox"/> Charge Any Additional Fee required under 37 CFR 1.16 and 1.17 <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27  2. <input type="checkbox"/> Payment Enclosed: <input type="checkbox"/> Check <input type="checkbox"/> Credit Card <input type="checkbox"/> Money Order <input type="checkbox"/> Other	<b>FEE CALCULATION (continued)</b>  <b>3. ADDITIONAL FEES</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> </tr> <tr> <th>Code</th> <th>Fee (\$)</th> <th>Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late Provisional filing</td></tr> <tr><td>1053</td><td>130</td><td>1053</td><td>130</td><td>Non-English specification</td></tr> <tr><td>1812</td><td>2520</td><td>1812</td><td>2520</td><td>For filing a request for ex parte Reexamination</td></tr> <tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td></tr> <tr><td>1806</td><td>1840*</td><td>1805</td><td>1840*</td><td>Requesting publication of SIR after Examiner action</td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td></tr> <tr><td>1252</td><td>410</td><td>2252</td><td>205</td><td>Extension for reply within second month</td></tr> <tr><td>1253</td><td>930</td><td>2253</td><td>465</td><td>Extension for reply within third month</td></tr> <tr><td>1254</td><td>1450</td><td>2254</td><td>725</td><td>Extension for reply within fourth month</td></tr> <tr><td>1255</td><td>1970</td><td>2255</td><td>985</td><td>Extension for reply within fifth month</td></tr> <tr><td>1401</td><td>320</td><td>2401</td><td>160</td><td>Notice of Appeal</td></tr> <tr><td>1402</td><td>320</td><td>2402</td><td>160</td><td>Filing a brief in support of an appeal</td></tr> <tr><td>1403</td><td>280</td><td>2403</td><td>140</td><td>Request for oral hearing</td></tr> <tr><td>1451</td><td>1510</td><td>1451</td><td>1510</td><td>Petition to institute a public use proceeding</td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - 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late filing fee or oath	1052	50	2052	25	Surcharge - late Provisional filing	1053	130	1053	130	Non-English specification	1812	2520	1812	2520	For filing a request for ex parte Reexamination	1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	1806	1840*	1805	1840*	Requesting publication of SIR after Examiner action	1251	110	2251	55	Extension for reply within first month	1252	410	2252	205	Extension for reply within second month	1253	930	2253	465	Extension for reply within third month	1254	1450	2254	725	Extension for reply within fourth month	1255	1970	2255	985	Extension for reply within fifth month	1401	320	2401	160	Notice of Appeal	1402	320	2402	160	Filing a brief in support of an appeal	1403	280	2403	140	Request for oral hearing	1451	1510	1451	1510	Petition to institute a public use proceeding	1452	110	2452	55	Petition to revive - unavoidable	1453	1300	2453	650	Petition to revive - unintentional	1501	1300	2501	650	Utility issue fee (or reissue)	1602	470	2502	235	Design issue fee	1603	630	2503	315	Plant issue fee	1460	130	1460	130	Petitions to the Commissioner	1807	50	1807	50	Processing fee under 37 CFR 1.17(g)	1806	180	1806	180	Submission of IDS	8021	40	8021	40	Recording each patent assignment per property (times number of properties)	1809	750	2809	375	Filing a submission after final rejection (37 CFR § 1.129(a))	1810	750	2810	375	For each additional invention to be examined (37 CFR § 1.129(b))	1801	750	2801	375	Request for Continued Examination (RCE)	1802	900	1802	900	Request for expedited examination of a design application	Other fee (specify) _____				
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<b>FEE CALCULATION</b>					
<b>1. BASIC FILING FEE</b>					
Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)		Fee Paid
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	180	2005	80	Provisional filing fee	
<b>SUBTOTAL (1)</b>					<b>(\$) 0.00</b>
<b>2. EXTRA CLAIM FEES</b>					
Total Claims	Previously Paid**	Extra Claims	Fee from below		Fee Paid
Independent Claims	20	3	18		
			84		
Multiple Dependent			280		
Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)		Fee Description
1202	18	2202	9		Claims in excess of 20
1201	84	2201	42		Independent claims in excess of 3
1203	280	2203	140		Multiple dependent claim, if not paid
1204	84	2204	42		* Reissue independent claims over original patent
1205	18	2205	9		* Reissue claims in excess of 20 and over original patent
<b>SUBTOTAL (2)</b>					<b>(\$) 0.00</b>
**OR NUMBER PREVIOUSLY PAID, IF GREATER THAN STANDARD ALLOWANCE. *For Reissues, see above					

<b>SUBMITTED BY</b>		<i>Complete (if applicable)</i>	
Name (Print/Type)	Steven A. May	Registration No.	44,912
Signature		Telephone	(847) 576-3635
		Date	October 12, 2004

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T-937 P.004/011 F-688

- PATENT -

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Scribano et al. EXAMINER: Han, C.  
SERIAL NO.: 09/657,915 ART UNIT: 2665  
FILED: 09/08/00 CASE NO.: CE08306R C02  
ENTITLED: PACKET TRANSMISSION METHOD

Motorola, Inc.  
Corporate Offices  
1303 E. Algonquin Road  
Schaumburg, IL 60196  
October 12, 2004

APPEAL BRIEF UNDER 37 CFR 1.192

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<u>[Signature]</u>	
Signature	

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Commissioner:

The appellants hereby respectfully submit the following Appeal Brief in response to a Final Office Action dated March 11, 2004, and a Notice of Appeal filed August 11, 2004.

### 1. REAL PARTY IN INTEREST

The real party in interest in this appeal is Motorola, Inc.

### 2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

### 3. STATUS OF CLAIMS

This is an appeal from a Final Office Action, dated March 11, 2004. Claims 1-5 are appealed. In a first Office Action dated December 5, 2003 (paper no. 5), the Examiner rejected claims 1-4 under 35 U.S.C. §102(e) as being anticipated by Heikkinen et al. (WO 200041431, hereinafter referred to as "Heikkinen").

In an Amendment dated January 9, 2004, the appellants amended claims 1, 3, and 4 and added a new claim 5. Claim 1, as amended, taught a backhauling method including determining whether to convey information received from a mobile station in a backhaul frame based on a decoding metric, in response to determining to not convey the information in the frame, controlling, in a base station transceiver, a header for a packet frame to be communicated between the base station transceiver and a network controller wherein a portion of the header identifies the frame as one containing no data package, and transmitting the frame to the network controller with the constructed header and without the data package.

In the Final Office Action, dated March 11, 2004, the Examiner rejected claims 1-5 under 35 U.S.C. §103(a) as being unpatentable over Heikkinen in view of Dempo (U.S. patent no. 6,587,465). No claims were allowed.

A Response to the Final Office Action was filed on May 11, 2004, and is currently pending. No claims were amended by the Response to the Final Office Action. No Advisory Action has been received by the appellants. No claims have been allowed. The pending claims 1-5 are reproduced below in the attached Appendix.

#### 4. STATUS OF AMENDMENTS

A Response to the Final Office Action was filed on May 11, 2004, and is currently pending. In the Response to the Final Office Action, the appellants responded to the Examiner's rejections of claims 1-5 and requested that the Examiner reconsider the rejection of the appellants' claims as amended by the amendments of January 9, 2004. The Response after Final did not further amend any claims. No Advisory Action has been received.

#### 5. SUMMARY OF INVENTION

The appellant's invention provides a wireless communication system that includes base station transceivers that communicate with a network controller and that provide for wireless communication with mobile stations. Each base station transceiver controls a header for a packet frame to be communicated between the base station transceiver and the network controller, wherein a portion of the header identifies the frame as one containing no data package. For example, the data bits of the header field may contain a predetermined bit pattern for a frame containing no data package. When a decoding metric with respect to a received frame passes a threshold, the data payload received by the base station transceiver from the mobile station may be dropped and the header information replaced by the specified bit pattern.

Claim 1, as amended, provides a method for backhauling data. The method includes steps of determining whether to convey information received from a mobile station in a backhaul frame based on a decoding metric, in response to determining to not convey the information in the frame, controlling, in a base station transceiver, a header for a packet frame to be communicated between the base station transceiver and the network controller wherein a portion of the header identifies the frame as one containing no data package, and transmitting the frame to the network controller with the constructed header and without the data package. (Figures 1 and 2; page 3, line 3 to page 5, line 10.)

6. ISSUES

Issue

Whether claim 1 is unpatentable under 35 U.S.C. §103(a) over Heikkinen in view of Dempo.

7. GROUPING OF CLAIMS

Appellants designate the following groups of claims:

Group I: claims 1-5.

8. ARGUMENT

(i) Rejection under 35 U.S.C. §112, first paragraph:

None

(ii) Rejection under 35 U.S.C. §112, second paragraph:

None

(iii) Rejection under 35 U.S.C. §102:

None

(iv) Rejection under 35 U.S.C. §103:

The Examiner rejected claims 1-5 under 35 U.S.C. §103(a) as being unpatentable over Heikkinen in view of Dempo. Specifically, with respect to claim 1, the Examiner contended that Heikkinen teaches controlling, in a base station transceiver, a header for a packet frame to be communicated between a base station transceiver and a network controller, wherein a portion of the header identifies the frame as being defective (page 9, lines 26-27; page 11, line 29) and transmitting the frame to the network controller with the constructed header.

The Examiner acknowledged that Heikkinen does not teach determining whether to convey information received from a mobile station in a backhaul frame based on a decoding metric, and in response to determining to not convey the information in the frame, controlling, in a base station transceiver, a header for a packet frame to be communicated between a base station transceiver and a network controller, wherein a portion of the header identifies the frame as one containing no data package, and transmitting the frame to the network controller with the constructed header and without the data package. However, the Examiner contended that these steps are taught by Dempo (col. 7, lines 14-23; col. 12, lines 37-46).

The appellants respectfully disagree. Neither Heikkinen nor Dempo teaches backhauling a frame without a data package. Heikkinen teaches a base station that receives a frame from a mobile station. An uplink judging means of the base station judges a quality of the received frame. When the quality of the received frame falls below the predetermined threshold, the base station tags the frame with a flag indicating that the data is of unacceptable quality and forwards the frame, including the defective data and the flag, to a radio network controller (RNC). As acknowledged by the Examiner, Heikkinen does not teach the features of claim 1 of determining whether to convey information received from a mobile station in a backhaul frame based on a decoding metric, and in response to determining to not convey the information in the frame, controlling, in a base station transceiver, a header for a packet frame to be communicated between a base station transceiver and a network controller, wherein a portion of the header identifies the frame as one containing no data package, and transmitting the frame to the network controller with the constructed header and without the data package.

Dempo teaches a base station that receives a frame from a mobile station that includes user data. A wireless communication layer terminating part of the base station makes a quality measurement, such as a field strength or an error rate measurement, with respect to the frame and then a quality checking part of the base station performs a quality check by comparing the measurement to quality information. When the quality measurement compares unfavorably with corresponding quality information, the quality checking part outputs an invalid data generated notice. Based on the invalid data



generated notice, the base station then generates a data packet that includes an valid/invalid data identifier that identifies the data as invalid data and that further includes the invalid user data or alternatively filler (dummy) data. The base station then conveys the data packet to a mobile switching center (MSC).

By contrast to Heikkinen and Dempo, claim 1 teaches a backhauling of a frame without any data package. The frame includes a header indicating that there is no data package as the frame is not intended to include, and correspondingly does not include, a data package. Such a frame is not taught by either Heikkinen or Dempo. If the RNC of Heikkinen or the MSC of Dempo received a frame without any data package, the RNC or MSC would not know what to make of the frame. By not passing up invalid data or filler data for a frame, the teachings of claim 1 permit a reduction of an average backhaul bandwidth for a communication system and a corresponding improvement in system capacity, which can be a constraining factor as wireless communication systems provide ever increasing amounts of data services. Accordingly, the appellants respectfully submit that claim 1 is not unpatentable over the prior art of record.

Regarding dependent claims 2-5, because claims 2-5 depend directly or indirectly from independent claim 1, the appellants respectfully submit that claims 2-5 are not unpatentable over the prior art of record.

(v) Other rejections

None

8. CONCLUSION

For the above reasons, the appellant respectfully submits that the rejection of claims 1-5 under 35 U.S.C. §103(a) as being unpatentable over Heikkinen in view of Dempo is in error and should be reversed and the claims allowed.

7

Respectfully submitted,  
Gino Scribano et al.

By: 

Steven A. May  
Attorney for Applicants  
Registration No. 44,912  
Phone No.: 847/576-3635  
Fax No.: 847/576-3750

APPENDIX

1. For a wireless system including base station transceivers to communicate with at least one mobile station, the base station transceivers communication with a network controller, a method comprising the steps of:

determining whether to convey information received from a mobile station in a backhaul frame based on a decoding metric;

in response to determining to not convey the information in the frame, controlling, in a base station transceiver, a header for a packet frame to be communicated between the base station transceiver and the network controller wherein a portion of the header identifies the frame as one containing no data package; and

transmitting the frame to the network controller with the constructed header and without the data package.

2. The method according to claim 1 wherein data bits of a header field contain a predetermined bit pattern for a frame including no data package.

3. The method according to claim 1 wherein the information received by the base station from the mobile station is dropped, and the header information is replaced with the specified bit pattern, if a decoding metric passes a threshold.

4. The method according to claim 1 wherein the information received by the base station from the mobile station is dropped and the header information is replaced with the specified bit pattern if a CRC for the frame received from the mobile station fails.

5. The method according to claim 1 wherein the decoding metric comprises at least one of a finger lock status, a symbol error rate, a bit error rate, and signal-to-interference ratio, and a signal-to-noise ratio.